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China Report

AGRICULTURE

No. 107



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23 October 1980

CHINA REPORT

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I. GENERAL INFORMATION

POPULARIZATION OF AGRO-TECHNIQUES DISCUSSED

HK100806 Beijing RENMIN RIBAO in Chinese 4 Oct 80 p 1

[Editorial: "Greater Efforts Should Be Made To Popularize Agro-Techniques"]

[Text] The key to achieving agricultural modernization is the modernization of agro-sciences and techniques. Greater efforts should be made to tap the potential of scientists and technicians in order to popularize scientific and technical research results on a still wider scale and to push forward China's agricultural modernization at a faster pace in accordance with the actual conditions of China's agriculture at present.

In order to strive for higher farm output, we must rely on policies and science. Relying on science means that we must utilize our scientific and technical forces to promote a sustained growth in agricultural production. Popularization of agro-techniques represents a major link in agricultural science and technology. Only by means of popularization can the research results of agricultural science and technology become a productive force directly serving the needs of promoting agricultural production. We have popularized certain numbers of agricultural scientific research results over the past 30 years since the founding of our country, and which have helped enormously to promote the production of grain, economic crops and animal husbandry in our country. Wheat rust, for instance, used to be a major menace to China's wheat production. But due to the hard work of scientists who figured out the law governing the dissemination of wheat rust and developed and popularized a high-yield and rust-resistant strain, as well as the promotion of a consolidated prevention and control method, wheat rust has, in the main, been brought under control in the major wheat-producing areas in north and northwest China since 1965. To cite another case, in 1973, we succeeded in cross breeding non-glutinous rice. In 1979, this was popularized over an area of more than 75 million mu. Average production per mu of this variety is usually 100 to 150 jin more than those of ordinary varieties.

The 10 years of chaos had not only dealt a telling blow to our agricultural scientific research work but also seriously destroyed the

popularization of agro-techniques in our country. The research and popularization of agro-techniques still remains as a weak link today. If this state of affairs is not rapidly changed, it will become a major obstacle to the process of agricultural modernization. According to statistics compiled by the 1977 national science conference, there were some 3,000 fairly important research results in the field of agricultural science and technology since nationwide liberation, and an additional 1,000 research projects have been completed in the past 2 years. But only a small portion has been popularized and extensively applied, and the remaining large portion has not yet been popularized and applied. The losses are beyond estimation. As long as we conscientiously popularize the existing scientific research results, a direct impetus can be created to promote the development of current agricultural production.

Some of our leading comrades do not fully understand the importance and complicated nature of agro-techniques popularization. They either stick to conventions and pay inadequate attention to studying and promoting new techniques, or adopt administrative measures to give orders and arbitrary directions. There are many lessons in this aspect. For instance, leading comrades in a certain locality stubbornly refused to heed the correct suggestions of the technicians and blindly introduced diseased cotton seeds from other places. This resulted in the spread of the disease, a problem which they feel totally helpless in solving. Agricultural production has a strong regional character. The scientific-technical research results in one area may not be suitable to other areas. Therefore, in popularizing the research results of agricultural science and technology, it is essential to proceed from the natural conditions and social economic conditions of different places, and promote them through experiments and demonstrations in accordance with the principle of adaptation to actual local conditions.

Popularization of agro-techniques represents in itself a branch of science. The leading cadres at all levels must earnestly study agricultural science and change themselves from nonprofessionals into professionals as soon as possible. Meanwhile, efforts should also be made to boldly promote the outstanding agro-technical cadres to leading posts so as to gradually transform the structure of the existing ranks of agricultural cadres.

Before the "Great Cultural Revolution," most counties in our country had a agro-techniques populatization station. Although they were not perfect, they did a lot of work. During the 10 years of chaos, Lin Biao, the "gang of four" and their kind shouted ultraleftist slogans like "open-door scientific research," "occupation of the positions of science and technology by the poor and lower middle peasants" and "workers, peasants and soldiers are the main force in scientific research," which negated the role of the contingent of professional scientific researchers as the backbone in this undertaking, and did many things which were just

formalistic agro-techniques popularization stations. This is the main reason why popularization work has been weak all these years. At present, we must seriously study the readjustment of the system of agricultural science-research and agro-techniques popularization. County level organizations must take popularization as their main task, integrate experiments, demonstrations, popularization and technical training, strengthen agro-techniques popularization work at the commune and brigade levels and gradually establish a system of agro-techniques popularization running from top to bottom.

We must build a large contingent of cadres to be in charge of agro-techniques popularization. This will be an indispensable force in achieving agricultural modernization. To build such a contingent, we must have guarantees in the form of policies. At present, we have more than 100,000 cadres in charge of agro-techniques popularization in our country. They continuously fight at the frontline of agricultural production, doing tenuous work. They have gained great achievements. However, in many places, they are asked to perform sundry tasks or assigned to administrative work. Many agro-techniques popularization cadres still live under very poor living conditions after working for more than 10 to 20 years. This situation greatly affects the stability and growth of this contingent. Leadership at all levels must attach importance to and care for this contingent, allow the dispersed agro-techniques popularization cadres to return to their original posts, promptly classify their technical positions according to regulations and gradually improve their working and living conditions. Commendations and rewards must be given to those who have made outstanding contributions.

Doing the job of agro-techniques popularization well is an important task of the agricultural departments. Comrades in those departments must ask themselves these questions: Have you attached adequate importance to popularization work? What are the agro-techniques that have been proven to be effective which you have not popularized in your locality? What are the scientific and technological potentials which can still be tapped? Rules and plans must be drawn up, measures must be enforced and plans must be implemented. There should be close coordination and cooperation among agricultural science research units, agricultural colleges and agro-techniques popularization departments to join efforts in doing a good job in agro-techniques popularization.

CSO: 4007

PROBLEMS IN SELECTIVE BREEDING RESEARCH OUTLINED

Fuzhou FUJIAN NONGYE KEJI [FUJIAN AGRICULTURAL SCIENCE AND TECHNOLOGY] in Chinese No 3, 10 Jun 80 pp 60-62

[Article by Lei Jiecheng [7191 2212 2052] of the Rice and Wheat Research Institute of the Fujian Provincial Agricultural Science Academy: "Trends in Research in and Application of Heterosis in Agricultural Crops"]

[Excerpts] From 21 to 27 October 1979, the Chinese Crops Society and the Chinese Cotton Society jointly sponsored a "National Academic Discussion Conference on the Utilization of Heterosis in Agricultural Crops" in Wuhan. The conference proceeded according to the policy of "let a hundred flowers bloom and a hundred schools of thought contend" to exchange information and discuss the topic. The conference confirmed the achievements in the utilization of heterosis in agricultural crops and also discussed existing problems and proposed hypotheses. The academic questions and the research trends discussed at the conference are described according to crops in the following:

(1) Selective Breeding of the Three Lines:

1. General Academic Thought

One viewpoint holds that the potential of yield of the presently available combinations is great but some shortcomings still exist. Aimed at these shortcomings, different emphasis should be grasped in different provinces (cities). The presently available three lines can be improved and changed. For example, the present combination of the restorer line of IR24 etc are better varieties of the 1970's, while the sterile free line is a variety of the 1960's in our nation. Therefore, selective breeding of the sterile free line not only can achieve success in improving resistance and yield but can also achieve success in raising the yield of seed propagation and reducing cost. The stability of yield of the presently available combinations can be increased simply by increasing the resistance of the restorer line. Another viewpoint holds that to realize a new breakthrough in hybrid paddy rice, the pedigree of both parents must be expanded, for example, using xian and geng heterosis and using the offspring of hybrids among genera as materials for the three

lines. The Guangxi Agricultural Academy used the yellow shell you zhan X ba mang and cultivated a peripheral restorer line that produces 500 to 600 grains per panicle and which has very good restoring characteristics.

2. Actual Problems in the Selective Breeding of the Three Lines

(a) Sterile Line

At present, the southern provinces are still using mainly the wild and the degenerate types. In the north, BT is mainly used. To diversify the combinations, the selective breeding of sterile lines of new materials and sources must be emphasized. For example, the geng type sterile line has already demonstrated its superior qualities in large area applications of heterosis, restoring ability, adaptability, and the concentration of the flowering time of the sterile line.

(b) Selective Breeding of the Sterile Free Line

At present, the sterile free lines are the varieties of the 1960's. The several good sterile free lines of zhen shan, Wei 41, Wei 20 are very closely related. It has been discovered in test crossing that varieties that will serve as good sterile free lines are few. This indicates the importance of this work. On the other hand, after several years of test crossing and rotational breeding, materials and experience have also been provided for the cultivation of sterile free lines.

(c) Selective Breeding of Restorer Lines

In the selective combination of early maturing combinations, the selective breeding of restorer lines is very important. Early maturing restorer lines presently being used in production are still Gu 154, 6185, IR28 75P-12 and Lian 24. But all of these restorer lines still have shortcomings. Therefore, they cannot be used daringly. According to studies conducted in Hunan, the Tan vin zao xian A X gu 154 hybrid matures early and resists yellow withering disease. It is being popularized as a demonstration at present. In the past, newly selected combinations mature early but are not superior mainly because under lower temperatures in spring, they do not tiller a lot. Therefore, selective breeding of early maturing restorer lines must emphasize strong tillering to achieve early maturation and high yields.

Selective breeding of restorer lines must utilize even more restorer sources. Besides the presently available wild and degenerate restorer source Peta (IR24, IR661, IR26), the function of Indonesian ai he, southern China's wild rice, yun II 21 of the Yunan and Guizhou Plateau, Shaanxi's hei gu must be further developed. More attention must also be paid to discovering new restorer sources to selectively breed more varieties and more kinds of restorer lines.

(2) Cultivation of Hybrid Paddy Rice

Research conducted by the head of the Guangdong Lianshan County Agricultural Science Institute Luo Qicong [5012 2601 5115] revealed that the daily yield of grains of hybrid paddy rice is between 8 and 10 jin, while the ordinary varieties yield between 6 and 8 jin. The yield of rice grains of hybrid rice for every 1°C of effective cumulative temperature is also higher than ordinary varieties. The yield of grains of early season wei you No 3 for each 1°C of effective cumulative temperature is 0.85 jin, and that of zhen zhu ai is 0.72 jin. The yield of grains of late season wei you No 6 for each 1°C of effective cumulative temperature is 0.73 jin, and that for ping guang xuan No 2 is 0.46 jin. Hybrid rice is more economical than ordinary varieties in the use of fertilizers under a high level of fertilization, each jin of pure ammonia produces 37.5 jin of grains while ordinary varieties only produce 30.4 jin.

To make hybrid rice produce a higher yield, research by the Guangdong Lianshan County Agricultural Science Institute, the Xuzhou Regional Institute, and the Rice and Wheat Institute of the Fujian Agricultural Science Academy indicates that the following points must be grasped:

- (1) Reasonable sowing times and transplanting times should be maintained to assure paddy rice will head, fill, mature under appropriate temperature conditions and sufficient sunlight. Special emphasis should be placed on the sufficiency of sunlight within 4 weeks after heading.
- (2) There must be high-yielding soil. High-yielding soil can effectively regulate the conflicts among water, fertilizers and aeration. Regulation by the soil itself is frequently more effective than artificial regulation.
- (3) Reasonable colony structure. For example, it is believed that cultivation of nan you should be 60,000 to 70,000 seedlings per mu, 20,000 batches of plants, with 300,000 tillers as the highest number and between 180,000 and 200,000 panicles. The leaf surface index 30 days after transplanting is 2.5, the period of differentiation should be at 4.5, the heading time should be at 7 to 8, the yellow ripe period should be at 4 to 4.5. The growth curve of the rice seedling should be shaped like a Chinese bun, not peaked. This kind of morphological indicators are more suitable. Overly prosperous growth during the early period is not beneficial to the formation of panicles. Overly prosperous growth during the latter period is not beneficial to fruiting. But in large area production, the problem is still an insufficiency in the number of seedlings and the number of panicles.

(3) Coupling Strength of Economic Characteristics

The Guangxi Agricultural Science Academy combined varieties with vastly different panicle characteristics. It is believed that the several factors of the number of panicles, the number of grains, the weight of grains, and the fruiting percentage mutually supplement each other and mutually limit each other. Large panicles and large grains supplement

each other but limit the number of panicles. Abundance of panicles and large grains supplement each other but limit formation of large panicles. Large panicles and an abundance of panicles supplement each other but to a certain degree limit the increase in the thousand grain weight. These combinations all showed a reduced fruiting percentage. Among these characteristics, the relationship between the number of panicles and the yield of the single plant is the closest.

1.3. Genetic Theory of Sterility and Restoration

The Chinese Agricultural Science Academy used F1 and F2 in test crosses to study the sterile line and concluded that the restoration of the sterile line of wild and degenerate varieties is controlled by a pair of genes which are independently inherited. Pure combination showed (FF). The Biology Department of the Beijing University used the method of colony genetics to calculate hybrid materials and concluded:

The cell nuclei of the sterile line of the wild and degenerate gene type have two pairs of major stable genes ms 1 and ms 2. The restorer line has two pairs of dominant restorer genes ms 1 and ms 2. The third theory is that some varieties do not possess fixed and invariable sterile cytoplasmic genes and fertile genes in the cell nuclei. Some other varieties do not have fixed and invariable sterile genes in the cell nuclei and fertile cytoplasmic genes. Sterility is produced by physical uncoordination (in) between the original cytoplasm and the foreign chromosome group. When they are well coordinated, sterility will be restored.

The Guangdong Coordination and Cooperation Group conducted research in the relationship between environmental conditions and the degree of manifestation of restoration and sterility. It was believed that restoration of the fertility of the sterile line is controlled by the three factors of environmental conditions, the restorability of the sterile line and the capability of restoration of the restorer line. Of these, the restorer line exerts the main function while the other two factors should not be neglected.

2. Cultivation of Materials of Wheat

At present, there are at least over 20 nations in the world that have launched theoretical studies and studies in application. The United States, Japan and the Soviet Union have conducted rotational breeding and selective breeding of sterile lines on a massive scale. They have all obtained many sterile lines. In recent years, some new restorer lines have been cultivated.

Our nation's research in hybridization of wheat has produced sets of "the three lines." The sterile lines are: Heilongjiang's "Ke feng No. 1"; Shandong's "Jing No. 7", "Jing 404"; Shandong's "Jiaohai No. 1", "Taihan No. 4"; Henan's "908"; Anhui's "No. 11"; Henan's "Zhengying No. 1";

Hainan's 101, the Beijing Agricultural University's 119, the method of selection was used to selectively breed such restorer lines as "yuan zhuo hai" during the process of extracting 808. The method of hybrid breeding was used to successfully breed a batch of restorer lines with better restoring strength, such as Hebei's 7269-10, 72130-8-11; Chejiang's 8-125; Shandong's 8231; Hailongjiang's 7-1072, the yuan hai No. 1 and yuan hai No. 2 of the Chinese Academy of Agricultural Sciences.

Utilization of heterosis of wheat is regarded differently in our nation and abroad at present. Some scholars believe hybrid wheat varieties are superior but not strong and hybridization of wheat is not necessary. This conference still confirmed the necessity of heterosis and confirmed the practical value of extracting sterile lines. The weak superiority of the present combinations is due to scarcity of the restorer lines of sterile lines of this type (extracted type), therefore the combinations are few. It is difficult to breed strongly superior combinations when the original combinations are few. In general, the research in hybridization of wheat is still at the trial stage.

Sorghum

Hybrid sorghum has developed rapidly. In recent years, the area has reduced mainly because of poor quality. Studies are now centered around raising the quality and remarkable achievements have already been made. A batch of high yielding and new combinations of superior quality such as Jin za No. 1, Lu za No. 1, No. 3, Tang ge No. 9, Jin za No. 9 have already been used in production.

Corn

Utilization of heterosis of corn has developed rather early in our nation and abroad. A relatively complete system has already been formed in theory and greater achievements have also been made in practice. Each province has selectively bred a group of superior hybrids. At present, our nation's scientific research workers who study corn share a popular feeling that after passing through selection of lines among varieties resulting from natural pollination and after using two-cycle lines, the difficulty of selectively breeding even more superior inbred lines using presently available domestic and foreign sources is increasing day by day. There has not been any big breakthroughs in recent years. Also, damage to corn due to disease has become more and more severe and damage due to disease has become the major factor that dictates the stability of corn production in our nation. Research in raising the level of yield of the selected lines and resistance to many types of diseases are not only the key question in the present utilization of heterosis but are also the direction of our efforts for a long period in the future.

To improve the yield which is a characteristic of multiple genes, and to increase multiple resistance to diseases, the road of improvement of the colony should be followed. Our nation's work in breeding corn at present has already entered a new phase of improvement of the colony.

Cotton

India was the first to apply heterosis of cotton on a large scale in production. In 1977, it reached 2 million mu, average per mu yield of ginned cotton was 107 jin, and recently it reached 313 jin, 1 to 2 times more in yield than the ordinary popular varieties. Hybrid varieties also manifest resistance to diseases and insects, good quality of fiber, and a capacity for weaving into 89 spindles. In 1978, heterosis was expanded in our nation's Henan, Hebei, Jiangsu, Sichuan, Hubei and Hunan provinces to 160,000 mu, producing 20 to 30 percent more in yield than the popular superior variety.

At present, the main hybrid variety of cotton is an artificial hybrid variety. India has successfully bred a sterile line Gregg, and it has been used to produce the hybrids CPH2 and CPH4, which are being subjected to comparison tests. The original variety farm in Yilong County in our nation's Sichuan Province selected a sterile line dong A ban from dong ting No 1. The two-line method was used for production. In 1978, it was demonstrated in southern Sichuan in more than 1,400 mu.

Utilization of heterosis by means of chemically induced male sterility in cotton can also be done. Combination of the three lines as a set is being studied but there has not been any breakthroughs yet.

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BRIEFS

PRC NATIVE PRODUCE--The 1980 National Commodity Fair for native produce and fruits, sponsored by the All-China Federation of Supply and Marketing Cooperatives, was held in Zhengzhou, Henan, from 21 to 29 September. More than 5,000 representatives of supply and marketing cooperatives, light industry, forestry and animal byproduct departments from all provinces, municipalities and autonomous regions took part in the fair. In a few days time, 1.049 billion yuan of sales were concluded. The sales volumes of native produce, fresh and dried fruits and dried vegetable condiment increased by 21 percent, 128 percent and 91 percent respectively, compared with the last commodity fair of the same kind. [OW051210 Beijing Domestic Service in Mandarin 0400 GMT 3 Oct 80]

NATIONAL AFFORESTATION CONFERENCE--Nanjing, 8 Oct (XINHUA)--It was disclosed at the Fourth National Conference on Afforestation in the plains that afforested acreage in the past 3 years was close to the total afforested acreage in the 27 years before that period. Statistics show that since 1977, 100 million mu of farmland has been surrounded by forests, 19 million mu of cultivated land has been interplanted with crops and tong trees and 3.2 billion trees have been planted. Taking into account the figures before 1977, China has surrounded 192 million mu of farmland with forests, interplanted crops with tong trees on 29 million mu of cultivated land and planted 7.2 billion trees. The afforestation of the plains has begun to produce results in some advanced counties. Farmland is being protected, agriculture and animal husbandry promoted, timber supply improved and peasants' income increased. [OW090455 Beijing XINHUA Domestic Service in Chinese 0231 GMT 8 Oct 80]

GRAIN PURCHASE, SALES--According to a CAIMAO ZHANXIAN BAO report, more than 14 billion jin of grain were purchased and sold at negotiated prices throughout China in the past 18 months, with 10.5 billion jin from April 1979 to March 1980 and more than 3.6 billion jin from April to August this year. [Beijing Domestic Service in Mandarin 2230 GMT 6 Oct 80]

METEOROLOGICAL SCIENCE POPULARIZATION MEETING--Hangzhou, 7 Oct (XINHUA)--At a national meeting on creative works for popularization of meteorological science, held in late September in Hangzhou, Zhejiang, awards were presented

to 58 advanced individuals and 17 advanced units. Among the individuals receiving awards was Jin Chuanda, a geography teacher in Xunlong County, Anhui Province, who had written 4 books and done 200 articles on basic knowledge of meteorology. Another award winner was Wu Tianfu, a cadre of the Hunan Provincial Meteorological Bureau. Since 1973 this cadre had written 5 books, constituting of 500,000 words, popularizing meteorological knowledge, which had been well received by the masses. The meeting also awarded prizes to a number of outstanding books, articles and fine art works concerning meteorological science. [Beijing XINHUA Domestic Service in Chinese 0203 GMT 7 Oct 80]

AGRICULTURAL MACHINERY SOCIETY COUNCIL--Beijing, 14 Oct (XINHUA)--The well-known mechanics expert Guo Dongcui was elected president of the Chinese Agricultural Machinery Society here today. Guo Dongcui, 71, graduated from the Tokyo Institute of Technology of Japan in 1935. He was once president of the Chinese Academy of Agricultural Mechanization and is now vice-chairman of the Scientific and Technological Committee of the Ministry of Agricultural Machinery. A 130-member council was elected at the second congress of the society now being held in Beijing to discuss how to achieve agricultural mechanization in China. More than 190 specialists from scientific research institutions, colleges and factories are taking part. It was learned that the society is to hold its annual forum from 15 to 17 October. Invited to the meeting are specialists and scholars from Australia, Austria, Canada, Denmark, France, the Federal Republic of Germany, Italy, Japan, the Netherlands and Yugoslavia as well as the International Society of Agricultural Engineering, the United Nations Industrial Development Organization and the International Rice Research Institute. [Text] [Beijing XINHUA in English 1527 GMT 14 Oct 80 OW]

PLAINS AFFORESTATION--Nanjing, 9 Oct (XINHUA)--China has afforested nearly as much plains territory over the past 3 years as she did in the previous 27 years. This was announced at the Fourth National Conference on the Afforestation of Plains Areas, held in Nanjing, called by the Ministry of Forestry. Since 1977, the conference was told, 6.7 million hectares of farmland in plains areas have been put under the protection of newly built windbreaks. A total of 3,200 million trees have been planted, including those along roads and rivers and around villages and houses. To date, China has planted 7,200 million trees in the plains. About 12.8 million hectares of farmland are now protected by windbreaks. Research data show that wind speed in areas protected by tree belts is reduced by 30-50 percent, humidity is raised by 10-30 percent, and evaporation is cut by 10-40 percent, compared with the open areas. This helps increase the yield of wheat by 13-26 percent and that of rice by 71-75 percent. [N130015 Beijing XINHUA in English 1212 GMT 9 Oct 80 OW]

FORESTRY ECONOMICS SOCIETY--Beijing, 21 Sep (XINHUA)--The China Forestry Economics Society has been set up in Beijing to study the role of forestry in the national economy and forestry modernization and management. Yang Wentao, vice-minister of forestry, was elected president of the society and Yu Guangyuan, vice-president of the Chinese Academy of Social Sciences, was engaged as an adviser. [Text] [OW220225 Beijing XINHUA in English 0805 GMT 21 Sep 80 OW]

ANTHER CULTURE GRAPE CULTIVATION--Jinan, 1 Oct (XINHUA)--Agronomists in east China have obtained grape vines by culturing anthers of grapes in test tubes. The anther is the part of a plant containing pollen. This is the first known successful experiment in breeding a deciduous fruit by anther culture in China. It reduces breeding time considerably. Agronomists Zou Changjie and Li Peifen and their group in Shandong Province began the research in 1974. They used more than 100 varieties of grapes and carried out 800 experiments. Now more than 200 of these grape vines have grown to over 1 meter high in the greenhouse of the research station. Earlier, China succeeded in using the technique to breed rubber, popular and citrus saplings. [Text] [Beijing XINHUA in English 0245 GMT 1 Oct 80 OW]

SUCCESS IN INCUBATING LOBSTERS--Beijing, Oct 4 (XINHUA)--The Zhanjiang City Aquatics Research Institute in south China's Guangdong Province has succeeded in incubating lobsters, according to a PEOPLE'S DAILY article today. At the end of the first stage of experiments which began in July this year, the article notes, thousands of young lobsters are growing well and their length now averages 1.5 millimetres. Lobsters usually weigh from half a kilogram to three kilograms. Owing to the low survival rate of young lobsters resources decreased. Therefore, artificial incubation is vital for expanding production, the article says. [Text] [OW040928 Beijing XINHUA in English 0753 GMT 4 Oct 80]

CSO: 4020

PARTY COMMITTEE STEPS UP FORESTRY DEVELOPMENT

OW140228 Hefei Anhui Provincial Service in Mandarin 1100 GMT 13 Oct 80

[Excerpts] The Anhui Provincial CCP Committee recently made a decision on developing the province's forestry at a faster pace.

The decision says: Anhui Province has made marked achievements in forestry production since the founding of our country. Especially under the guidance of the 3d plenary session of the 11th Central Committee of the Chinese Communist Party, the Anhui Provincial Party Committee has strengthened its leadership over forestry, followed a correct principle on production in mountain areas and adopted a series of policies and regulations governing production development in mountain areas, the construction of mountain areas, the strengthening of forestry management in mountain areas and the improvement of people's living standards in mountain areas. All this has given a direct impetus to the development of Anhui's forestry production. However, many problems still exist. These problems mainly find expression in a small percentage of land area covered with trees, failure to maintain the balance of the natural ecological system, sharp contradictions between the demand and supply of timber and bamboo, slow progress in afforesting barren hills and wasteland and insufficient control of illegal logging.

The decision says: To change this state of affairs in forestry effectively and to speed up Anhui's forestry development, the provincial party committee has called on all localities to conduct thorough investigations and studies and to work out better afforestation plans in accordance with the principle of adapting to the actual conditions of every mountain area. Trees must be planted along roads, rivers and ditches and around houses in Anhui's plain and hilly areas by 1985, and all barren hills must be covered with trees by 1990. When completed, Anhui's land area covered with trees will be increased from 14 percent at present to 25 percent. Beginning in 1981, concrete measures must be taken to afforest 2 million mu of land, plant 200 million trees around houses and along rivers, road and ditches, mark off 3 million mu of hilly areas for afforestation and [words indistinct] 500,000 mu of forest annually.

The decision says: The policy of all-round development with forestry as the main target must be resolutely implemented by all forestry zones in Anhui Province in order to arouse the people's enthusiasm for afforestation. To this end, the provincial party committee has designated Qimen, Xunlong, Shexian, Yixian, Jixi, Jingde, Taiping, Shitai, Dongzhi, Yuexi, Ningkuo, Jingxian, Jinzhai and Huoshan as major forestry counties. All communes, production brigades and production teams in mountain areas must give priority to forestry production. In all collective afforestation, a system of fixed responsibility should be established to guarantee that trees are planted, survive and grow into forests.

After urging the party committees at all levels to exercise stronger leadership over forestry development, the decision points out in conclusion that each and every rural cadre, party and CYL member and Young Pioneer in Anhui must strive to become activists for promoting forestry production.

CSO: 4007

ANHUI

62 IEFS

ESTIMATED CROP OUTPUT--According to initial estimates revealed by Zhang Jingfu, governor of Anhui at a press interview on 3 October, Anhui's total grain output for this year may still reach 31 billion jin despite earlier adverse weather conditions and flooding. The total area flooded this year was about 17 million mu. Although this grain figure is somewhat lower than that of last year, oilseed crops yielded a "big bumper harvest" this year. Cotton, hemp, tea, tobacco and silk production also was higher this year compared with the previous year. Moreover, diversified undertakings have been restored and developed in rural areas. As a result, the total rural income for this year will exceed that of 1979. [Hong Kong TA KUNG PAO in Chinese 5 Oct 80 p 1]

FEIXI COUNTY HARVESTS--This year Feixi County in Anhui has reaped a total of 136.89 million jin wheat from its 397,110 wheat fields, 14.7 percent higher than last year. It has also increased the total yield from its 195,781 mu rape fields by 130 percent. [Hefei Anhui Provincial Service in Mandarin 1100 GMT 3 Oct 80 OW]

CSO: 4007

FUJIAN

BRIEFS

FUJIAN RICE PRODUCTION--Fujian will reap a relatively bumper harvest in intermediate and late rice production this year. By the end of September, the province had harvested 14,000 mu of intermediate and late rice and the average production per mu was 490 jin, representing an increase of 20 jin per mu over 1979. The total production of 3.45 million mu of intermediate and late rice this year is expected to exceed that of 1979. [Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 21 Sep 80]

FUJIAN TIMBER PRODUCTION--By 20 September, the staff and workers of all forestry departments and rural communes and brigades throughout Fujian Province had produced some 2.4 million cubic meters of timber, 79 percent of the province's annual quota for timber production. The 114 state lumber mills in Fujian have fulfilled 87 percent of their annual quotas. By the end of August, 29 of 51 timber-producing counties and municipalities had fulfilled more than 75 percent of their annual quotas. [HK091358 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 25 Sep 80]

SUMMER GRAIN PROCUREMENT--Fujian Province has overfulfilled the summer grain procurement quota at 2 billion jin. The early rice harvest in Fujian this year is a bumper one despite unfavorable weather. All counties throughout the province fulfilled their procurement task in early September. [HK101458 Fuzhou Fujian Provincial Service in Mandarin 1035 GMT 29 Sep 80]

EEL EXPORTS--Fuzhou, 4 Oct (XINHUA)--The Hanjiang eel-breeding farm in Putian County, Fujian Province, has begun to export live eels to Japan. This fish farm, built under a contract with Japan, has 27 fish ponds at present with a total area of 26 mu. According to the design, the farm can produce 80 dun of eels annually. Since last February, 363 kilograms of eel fry have been put into the ponds, and thanks to good management, the fish have been growing well. [Beijing XINHUA Domestic Service in Chinese 0118 GMT 4 Oct 80 OW]

CSO: 4007

GANSU

BRIEFS

GANSU GRAIN, OIL-BEARING SEEDS--Mine County, Gansu Province, registered marked increases in grain and oil-bearing seeds in 1980. Total grain output value was 150 million jin, and oil-bearing seeds output value was 7 million jin, up 15 percent respectively over 1979, a new record. Output of commune's 110,000 mu of private plots and animal feeds cultivation plots increased 11 times over that of 1979. From this alone, each commune member received an extra 100 jin of food grain. [Lanzhou Gansu Provincial Service in Mandarin 1125 GMT 3 Oct 80]

CSO: 4007

GUANGDONG

DEVELOPMENT OF SUGARCAKE INDUSTRY DISCUSSED

Favorable Conditions

Guangzhou NANFANG RIBAO in Chinese 11 Jul 80 p 2

[Article by Wang Jianming [3769 7003 2494], Chief, Institute of Cane Sugar Research, Ministry of Light Industries: "On the Three Great Advantages of Guangdong for the Development of Cane Sugar Production"]

[Text] The conditions for developing cane sugar production are very good in Guangdong. The natural geography is suitable for the growth of sugarcane. The equipment for producing cane sugar is there, with high production capacity and great potential. The technological capacity is there, with numerous technicians skilled in cultivating sugarcane and manufacturing cane sugar. Cane sugar has a large market in China. It is suggested that the development of cane sugar production be given encouragement at the policy level. Production arrangements should be suitably adjusted to strengthen scientific research on sugarcane and to extend scientific culture of sugarcane.

At present, everyone is talking about how to enhance advantages and avoid shortfalls in connection with the problem of developing the superiorities of Guangdong Province. This is a good question. If we can clarify the advantages of Guangdong for selective development, we can quickly work out the province's economy. Based upon theoretical research and experiments over many years, I believe the province has three great advantages in developing cane sugar production.

The first is its natural geographical advantage. The province is located in the tropical and subtropical zones. The climate is warm, with an abundance of rainfall and a long frostfree period; therefore, it is very suitable for the growth of sugarcane. The yield is especially high in the Pearl River Delta, and the sugar content of the cane is high as well. Judging from Shunde County, the average yield of sugarcane may reach above 5 tons per mu, and the sugar content may reach 13 to 15 percent. The yield in sugar per mu may be more than double that of other provinces. All crops in Gunagdong dread typhoons, Rice dreads typhoons, and sugarcane dreads typhoons, but compared with sugarcane, rice dreads typhoons more. This is due to the

fact that the typhoon season is the harvest time for early rice, and a typhoon can often cause a great reduction in the rice yield--even a loss of the entire harvest. For sugarcane, however, this is a time of growth. Although typhoons may also cause losses in sugarcane, it is easy to apply emergency measures. The rain following the typhoon is very favorable for the growth of sugarcane. The Pearl River Delta has another very favorable condition for sugarcane culture, and that is the convenience of transportation. This is an area of crisscross streams. The stream network is very densely distributed. Transporting sugarcane by waterways is the least expensive in the entire country. The transportation cost for each ton of sugarcane is only 1-4 yuan.

The second advantage lies in the sugar refining equipment. The province now has 131 sugar refineries. There are 17 refineries with daily capacities of over 1,000 tons and 59 medium-size refineries with daily capacities of 350 to 1000 tons. This provides a total daily capacity of over 83,000 tons amounting to more than 40 percent of the sugar refining capacity of the country. At present, the equipment is only 70 percent utilized; there remains a very great potential for further development. Furthermore, the refining period at these plants is usually only 80 to 90 days [per year] and never exceeds about 100 days. If the refining period is properly lengthened, with some additional investment to renew and build the equipment, the production capacity of a number of plants may easily be doubled. By the way, after the sugar refining season, the tools of the plants are unused. If corn is imported, these tools may be used to process syrup, and thus the production capacities of these sugar refineries may be fully used to increase social wealth. Each jin of corn may be made into 1 jin 3 liang of high-grade syrup. This project will not only produce considerable income, but it may also provide raw materials for the food and pharmaceutical industries. It is an enterprise with a promising future.

The third advantage is that of technical capabilities. The province has a long history of sugarcane culture and sugar manufacture. As early as the Han Dynasty, someone by the name of Yang Fu [2799 1318] wrote a book, "Yiwu Zhi" ["Book of Strange Things"], in which he said: "Ganzhe [sugarcane]... is for obtaining its juice raw.... Cook it and sun it, and when it congeals, it is like ice... Some call it rock honey." This Yang Fu was a native of Guangdong. It is obvious that Guangdong has a history of over 2,000 years of cultivating and processing sugarcane. With regard to sugar refineries, the first mechanical sugar refinery in China was built in Guangdong. Prior to the War of Resistance Against Japan, there were eight large sugar refineries in the Pearl River Delta, including those at Shunde, Dongyuan, Xinzao, etc. A group of sugar manufacturing specialists existed then. After liberation, the party and the people exerted great efforts to support scientific research into the development of sugarcane culture and sugar refining, and a group of research organizations and refineries were established. A large number of skilled technicians were trained. At present, the province has a team of several thousand persons skilled in the planting of sugarcane, in the making of sugar, and in the comprehensive utilization, research, and teaching of production technology. This team

not only satisfies the needs of domestic production, but some of its members also take on the job of helping foreign countries. Besides, the capabilities for designing, manufacturing, and installing sugar refining machinery are also rather good in this province.

In a word, Guangdong's advantages in developing its cane sugar industry are quite obvious. It should be especially mentioned here that cane sugar has an extensive market in China and the supply of domestic sugar remains a great deal less than the need. There is no worry about producing more sugar than can be sold. Currently, some countries that produce cane sugar have adopted a policy of limiting the production of cane sugar and purchasing at a reduced price any portion that exceeds this limit. This problem does not exist in China.

How can Guangdong's cane sugar production be raised to a new level? I have some ideas and suggestions.

First, the development of cane sugar must be given some encouragement in policy. Fujian Province practiced a policy of a ton of sugar for a ton of grain to encourage commune members to produce sugar in excess of quota, and the policy has produced 2 consecutive years of large increases in sugar production. In order to produce more sugar, it is necessary to plant more sugarcane. So that the commune members will be willing to plant more sugarcane and cultivate it well, it is necessary to make the farmers feel that there is a profit to be gained in planting sugarcane, and the completion of the grain quota must be guaranteed. For this reason, when a pricing policy and encouragement policy are being formulated, ways to activate a positive attitude on the part of members for planting sugarcane must be taken into consideration. A policy of awarding prizes must be implemented to allow the members to gain real benefits. Policies must not be changed frequently. Some areas may be chosen as test points to practice the method of profit-sharing between the sugar refinery and the sugarcane farmers.

Second, there should be a suitable adjustment in production arrangements. The province now has about 3 million mu in sugarcane which produces only about 1 million tons of cane sugar a year. The sugarcane acreage in Australia is about the same, but the annual production of cane sugar is about 3 million tons. It is obvious that the sugar yield per mu in Guangdong is very low. Why is it so low? One of the important reasons is an unreasonable arrangement of production. The sugar yield per mu of Shunde County in Guangdong is almost the same as that of Australia, but that of some other places is much too low. If we were to use land suitable for sugarcane to plant sugarcane, and land not suitable for sugarcane for other crops, thereby creating a suitable concentration of sugarcane culture for specialized production, conditions would be more favorable for modernization of cropping and producing techniques, and even if the acreage were not increased, the yield could be greatly raised. Of course, a suitable concentration of sugarcane cultivation does not mean planting sugarcane forever. Rotating sugarcane with other crops, such as rice, is better for the growth of sugarcane. I maintain that

the sugarcane acreage should not be immediately enlarged. I believe that efforts should be given to adjust the canefield arrangement to raise the unit yield.

Third, scientific research on sugarcane must be strengthened to expand the scientific cultivation of sugarcane. I believe the technique of pot culture of seedlings should be expanded in a big way, so as to adopt the method of cultivating seedlings in late spring for summer transplanting and cultivating seedlings in late autumn for winter transplanting, thereby replacing the current method of planting sugarcane in the spring and autumn gradually. These two methods of seedling culture require no plastic thin film and are easily extended. The first method can improve the production of the perennial roots of sugarcane and in 2 years raise the harvest of early rice or peanuts or the unit yield of winter potatoes to create the conditions for short-term crop rotation or reduce losses to typhoons. The second method can shorten the period of use of the land for the fall sugarcane crop and produce the same result as fall-planted sugarcane. Through experimentation and demonstration, the new Manchurian No 8,000 chemical ripening agent has been extended to cause Yue-sugarcane 71/210 and summer-planted sugar cane to ripen earlier. Furadantin has been used to control cane borers, cotton aphid, and other cane pests. Superior breeds of sugar cane have been extended wherever the land is suitable and chemical weeding agents and phosphorus fertilizer applied. We also want to absorb the advanced experience of [countries of] the world in sugarcane culture and to utilize the favorable conditions that are the special gift of nature in Guangdong to contribute to China's development of cane sugar production.

Advantages To Be Gained

Guangzhou NANFANG RIBAO in Chinese 11 Jul 80 p 2

[Article by Zhuang Yao [8369 3613]: "There Are Many Advantages in Developing Production of Cane Sugar"]

(Text) The natural conditions of Guangdong for planting sugarcane are excellent, and the foundation of the sugar manufacturing industry is relatively good. As a matter of fact, cane sugar production should have been accelerated, but the acreage and yield of sugarcane have been reduced in recent years. Is this due to the fact that we have not recognized the advantages of cane sugar production? I believe it is very necessary to improve our knowledge of the advantages in developing cane sugar industry.

Planting sugarcane requires little investment and produces large profits. Comparing sugarcane with grain, the average yield of rice in Guangdong last year was worth 112 yuan per mu and the cost was 68 yuan. The net difference was 52 yuan from 1 mu of sugar cane over that of rice. It must also be noted that the unit yield of rice in Guangdong last year was the highest in history, while the unit yield of sugarcane did not reach the highest level in history. At present, the land used for sugarcane is generally not as good as the land used for rice. If sugarcane is emphasized the same as rice, and the same amount of land and manpower is applied, the yield of sugarcane will be still higher. For these reasons, the income from sugarcane may be much more than that of rice.

When more sugarcane is available, the development of light industry can be stepped up to increase financial income and employment. When more sugarcane is planted, the sugarrefining industry can develop further. With the development of the sugar industry, sugarcane chemistry, papermaking, the manufacturing of artificial feed, and the food industry can also be promoted. Last year, the value of the products of the sugar industry amounted to 8 percent of the value of all the products of light industry. The percentage is much greater if other light industries promoted by the sugar industry are included. Last year, the cane sugar industry provided taxes and profits for the state amounting to 12 percent of the total financial income of the province. In the 30 years since liberation, the income provided to the state by the sugar industry has been more than 10 times the capital investment provided to the sugar industry by the state. The sugar industry requires a certain amount of manpower, but the province has plenty of manpower searching for employment. At present, the province has more than 100 sugar pressing factories, with more than 45,000 permanent employees and 15,000 seasonal employees. There are also some farmers who work for local sugar factories operated by communes and brigades. If the sugar industry can be developed further, it can absorb even more manpower.

An expanded sugar industry can save foreign exchange for the state. At present, China's sugar production is less than self-sufficient and depends partially upon imports. The price of sugar on the international market is more than two and one-half times of that of rice and more than four times that of wheat. If the foreign exchange used to import sugar is spent to import grain, a great deal of foreign exchange may be saved. It is often said that Guangdong has a large population and very little arable land, making the problem of food difficult to resolve. If a solution is sought through the development of merchandise production and not through great efforts to achieve grain self-sufficiency, the sugarcane acreage can be enlarged and that of grain reduced. Sugarcane can be planted in exchange of grain, and the sugar produced from 1 mu of land can be exchanged for the grain produced from more than 1 mu. In this manner, the problem of lack of arable land may be resolved.

The development of cane sugar is an important problem in the province's acceleration of economic construction. Currently, the Party Central Committee has clearly directed the province to adjust its economic structure, to exploit advantages and avoid shortcomings, and to develop cane sugar production. We must be resolved to implement this policy. If we are determined to apply strong measures and correct policies for the rapid development of cane sugar production in the province, the entire economy of the nation will certainly develop and prosper soon.

HAINAN NOTICE ON PROTECTING RUBBER PLANTATIONS

HK130516 Haikou Hainan Island Service in Mandarin 0330 GMT 12 Oct 80

[Excerpts] The Hainan regional commissioners' office promulgated and started to execute on 11 October a notice on [word indistinct] rubber plantations and having the agricultural reclamation departments procure in a unified way the rubber grown on people's communes. The notice stressed: It is necessary to implement the state council's decision on speeding up the building of Hainan Island, correctly handle relations between state farms and communes, deal blows at a handful of criminal elements sabotaging rubber production and persons engaged in speculation, uphold the interests of the state and collective, and speed up the development of rubber production.

The notice said: The people's government and agricultural reclamation departments at all levels must organize the cadres and masses to seriously study and publicize the state council's decision on speeding up the building of Hainan Island, enhance and unify their understanding, seriously implement the production principle of concentrating on developing rubber and other tropical crops, and speed up the development of rubber and other tropical crop production in Hainan, to make contributions to the state's economic construction.

The notice said: Protecting the rubber plantations is the common responsibility of the people of all nationalities in Hainan. We must deal resolute blows at and punish according to law a very small number of criminal elements who take the lead in sabotaging state and collective property and gravely violate law and discipline. We must commend and reward units and individuals who have scored outstanding success in developing rubber production and protecting the plantations.

The notice stipulated: Beginning 11 October 1980, the latex, rubber strips, crepe and so on produced by all county and municipal communes and brigades and local state farms will be procured in a unified way by the agricultural reclamation departments at prices regulated by the state.

The notice demanded that resolute blows be dealt at criminal elements and speculators engaged in peddling rubber products. It is necessary to trace the responsibility in cases of units and individuals establishing private rubber procurement centers, scrambling to buy rubber and transporting it in a surreptitious way. All rubber bought illegally or transported surreptitiously must be confiscated by the local industrial and commercial administrative departments. Thirty percent of the income from such confiscations is to be handed over to units and individuals who gained merit in exposing such cases.

The notice said in conclusion: It is necessary to seriously handle land disputes between state farms and communes. Such disputes must be settled properly after full consultations in accordance with the State Council's eight principles for handling land disputes between state farms and communes. If such consultations are inconclusive, the status quo should be maintained and the problem should be referred to higher authority for handling. It is impermissible to make such disputes a pretext for causing disturbances or sabotaging production; if that happens, those responsible will be prosecuted.

CSO: 4007

SHUNDE COUNTY STRESSES SPECIAL LOCAL ADVANTAGES, GIVES STATISTICS

Guangzhou NANFANG RIBAO in Chinese 30 Aug 80 p 2

[Article by correspondent Wang Qicong [3769 0796 5115] and reporter Li Erkuan [7812 1422 1401]: "Shunde County Stresses Special Local Advantages to Achieve Prosperity More Rapidly, Overall Development of Agricultural Sideline Products, Particularly of Economic Crops, Total Value of Industrial and Agricultural Output Throughout the County Last Year Averaged 1000 Yuan Per Person, Production Team Grade 1 [0001 4787] Distributions Averaged 22 Yuan Per Person"]

[Text] Shunde County, where the economic crop producing areas of Guangdong Province are concentrated, recently put into effect a program of "complete development of agricultural and industrial sideline products with the emphasis primarily on economic crops" in an effort to increase commodity production, so that the collective economies of rural villages will be rapidly strengthened and striking increases will take place in the level of distributions to commune members to make the county become the currently most relatively prosperous one in Guangdong Province.

Last year, total industrial and agricultural output value for all of Shunde County amounted to more than 796 million yuan for an average of 1000 yuan per person. The value of agricultural sideline products transferred to the state by the entire county was the equivalent of almost 1 billion jin of grain, for an average of 236 yuan for every person engaged in agriculture. Total value of goods purchased by the state for foreign trade amounted to more than 150 million yuan, with goods exported directly from Shunde ports alone creating \$8 million dollars worth of foreign exchange, for an average of 100 dollars for every person engaged in agriculture. Production team grade 1 [0001 4787] distributions averaged 220 yuan per person, an increase of 46 yuan over 2 years ago. This year, this county's industrial and agricultural sideline industries have seen new development. For the first half year, total output value of silkworm cocoons throughout the county was 13.2 percent more than for the same period last year, and even though pond fish were seriously damaged by cold, output value was still greater than for the same period last year. Sugarcane production was generally better than last year, and total output value of commune and brigade operated business enterprises showed a 24.5 percent increase over the same period last year.

Shunde County is located in the central part of the Pearl River Delta. The area is crisscrossed by rivers and dotted with ponds, and the soil is rich. It is thus naturally endowed with the conditions for the development of economic crops. The cultivated area of the county is 650,000 mu, which is 0.67 percent of the cultivated area of the entire province, but total output value of agriculture amounts to 3.1 percent that of the entire province. Fresh water fish amounts to 20 percent of the province's total amount marketed; sugarcane production accounts for 11 percent of the province's total, and silkworm cocoon production is more than 50 percent that of the entire province. For these reasons, it has been called the "land of fish and rice," and "silk capital of the south." During the rampage of Lin Biao and the "gang of four," however, development of economic crops came under criticism as a capitalistic tendency of "three stresses and three slights." As a result, some places saw the destruction of fish ponds, mulberry bases, and sugarcane fields were converted to rice fields in the destruction of what had formerly been a quite rational pattern of production with a weakening of the collective economy. By 1976, production team grade 1 average per capita distribution throughout the county were only 135 yuan. Once the "gang of four" had been overthrown, and particularly following the Third Plenary Session of the 11th Party Central Committee, the Shunde County CCP Committee carried out a criticism of the extreme leftist line, continually liberated thoughts, and implemented the various policies of the party, and only then did a gradual revival and development of economic crops take place.

In order to make the most of the special advantages of the areas in which economic crops are concentrated, all the communes and brigades made a preliminary readjustment of the pattern of production under the guidance of the state plan to produce fish in places suited to fish production, mulberry trees in places suited to mulberry trees, sugarcane in places suited to sugarcane, and paddy rice in places suited to paddy rice. In the economic crop production areas, they rolled back the croplands to replace them with ponds (or mulberry trees or sugarcane), and after restoring the former composition of production, they vigorously promoted rotational cropping for sugarcane, sericulture, and peanuts. Now the area of crop rotation in these places totals 250 million mu, which is 11 percent of the total area of sugarcane and silkworm cocoon production. This has played a very large role in increasing the fertility of the land and increasing output. At the Shajiao Commune, which is a major sugarcane producing area, sugarcane has been grown on drylands for a long period of time year after year with the result that fertility of the soil has declined and output has become increasingly less. In recent years, they instituted rotation of mulberry with sugarcane, and sugarcane with other economic crops on part of their land. Per mu yields of sugarcane increased as a result from somewhat more than 4 tons to somewhat more than 6 tons. Throughout the commune this year, sugarcane has grown better than last year, and output value of silkworm cocoons for the period January through June increased by 17.5 percent over the same period last year. Forty of the 66 production brigades in the paddy field regions have readjusted their pattern of production while guaranteeing increases in grain production. They have converted a total of 15,000 mu of paddy fields to the cultivation of economic crops. This amounts to 9.6 percent of the total paddy fields in the paddy field area.

in the development of its agriculture, Shunde County has put to use the advantageous conditions of being close to large and medium cities as well as to neighboring Hong Kong and Macao for the vigorous development of commune and production brigade enterprises and the development of foreign trade. Last year, total output value for commune and production brigade enterprises throughout the county amounted to more than 220 million yuan. During the past several years, the Longjiang, Shajiao, Leliu, and Chencun communes have annually used several hundred thousand yuan of the income from business enterprises for investment in agriculture, providing large amounts to capital for the development of economic crops. Last year, capital derived from the income of commune and production brigade enterprises and used to support agricultural production amounted to 4.35 million yuan.

Recently the Shunde County CCP Committee summarized the lessons of the past several years of experience. They felt strongly that though the county had made some effort toward the development of economic crops and commune and production brigade business enterprises, as a result of the limitations of the current system of management, Shunde had not made the fullest use of the special advantages offered by the areas in which economic crop production is concentrated. They felt that there is still a large potential for implementation of policies and a large potential for production. The current output of silkworm cocoons throughout the county is still insufficient to serve the needs of the silk reeling industry. Five silk filature plants must import cocoons from other counties every year. Per mu yields of pond fish are still not high. With an ample supply of feed, they could be greatly increased. In addition, problems in the return of profits to the farms and division of foreign exchange from foreign trade remain to be solved. All these matters impair the enthusiasm of the masses. These problems require that further actions be taken by higher authority and departments concerned for their solution.

9432

CSO: 4007

BRIEFS

SILK PRODUCTION POTENTIAL--Historically, silkworm cocoons have been the foremost economic crop produced in Guangdong Province. During the mid-1920's, Guangdong Province produced more than 1 million dan of silkworm cocoons, and exported more than 60,000 dan of natural silk amounting to about half the value of all natural silk exported nationwide at the time. Though much work has been done since Liberation in the development of sericulture with an annual production of 400,000 dan of cocoons as of 1979, which was four times the amount of the immediate post-Liberation era, nevertheless it still does not meet the highest levels ever recorded and development has been very unbalanced, being concentrated in several counties of the Pearl River Delta. Many places where sericulture has been practiced historically produce few cocoons today. During the past several years, annual exports of natural silk from the entire province has amounted to about 300,000 dan. In 1979 foreign exchange earnings from the export of silk amounted to almost 70 million dollars, which was only about 10 percent of the total value of silk exports nationwide. In the development of sericulture production, I believe it is still necessary to make the most of advantages and play down disadvantages, by which I mean we must do more to develop fine quality cocoons, and produce higher quality silk in order to earn more foreign exchange and increase the income of the farmers. In recent year, erhuaxing [0059 0553 1844] cocoons have accounted for only about one-fifth total cocoon output, and more than 30,000 dollars per ton has been earned from silk reeled from these kinds of cocoons while the silk reeled from the other four-fifths of the duohuaxing [1122 0553 1844] cocoons fetches a price that is lower by from 15 to 20 percent, and which is harder to sell as well. Furthermore, for the same dan of mulberry leaves used by farmers to raise silkworms, the sale of erhuaxing cocoons from the second crop for from the sixth and seventh crop of cocoons is a little greater. Annual average output value for a dan of mulberry leaves is also somewhat greater from erhuaxing cocoons. Inasmuch as conditions are currently in readiness with quite good erhuaxing superior varieties and scientific techniques for growing mulberry and raising silkworms, all that is needed is liberal wages and benefits in award sales and the enthusiasm of the farmers for the raising of erhuaxing cocoons will be raised. [Text] [Guangzhou NANFANG RIBAO in Chinese 29 Aug 80 p 2] 9432

SUMMER GRAIN PROCUREMENT--According to the statistics of the Guangdong Provincial Grain Department, by 15 September, the province had overfulfilled its quota for summer grain procurement by 100.3 percent. Foshan and Zhaoqing prefectures, Guangzhou, Zhangjiang Prefecture, Hainan region and Zhuhai Municipality overfulfilled their quotas for summer grain procurement. In view of uneven production of summer grain this year, the provincial people's government readjusted the procurement quotas of all prefectures in a timely manner. After the readjustment, the province reduced the quotas for summer grain procurement by some 90 million jin, compared with last year. The province reduced the quotas for summer grain procurement of Hainan region and Foshan and Zhaoqing prefectures by some 133 million jin because the latter suffered from natural disasters. [Guangzhou Guangdong Provincial Service in Mandarin 1120 GMT 22 Sep 80 HK]

ZHAOQING PREFECTURE FRESHWATER FISH--Zhaoqing Prefecture in Guangdong Province has increased its fish-raising areas to more than 174,000 mu. The amount of freshwater fish produced in the first half of 1980 increased 35.6 percent over that in the corresponding period in 1979. [Hong Kong ZHONGGUO XINWEN in Chinese 16 Aug 80 p 4]

CSO: 4007

GUANGXI

BRIEFS

SUMMER GRAIN INCREASE--According to data just compiled by the investigation committee for summer grain output, the output of summer-harvested grain in Guangxi increased 220 million jin, a 2 percent increase over the same period in 1970. Of this, early rice increased by 173 million jin, a 1.83 percent increase and early and mid-season corn increased 88 million jin an increase of 5.4 percent over 1979. This year Guangxi designated 150 communes as commercial grain bases. The increased output from these bases has been relatively large. For example, Nanning Prefecture designated 35 communes as commercial grain bases. The area planted to grain in these bases account for about 40 percent of the grain area in the prefecture. The increase in early grain output accounted for 78 percent of the total increase in the prefecture. [Hong Kong ZHONGGUO XINWEN in Chinese 16 Aug 80 p 1]

CSO: 4007

GUIZHOU

BRIEFS

EARLY RICE PRODUCTION--Early rice harvest was completed by 4 September in Guizhou Province, and production of early rice was increased. The average yield per mu has been increased by 40 jin. The total harvested area in Guizhou Province was 51,500 mu and the average per unit area yield was 558 jin. The province started late rice sowing after the early rice harvest, and by 4 September, the province has sown an area of 35,700 mu. [Guangzhou GUIZHOU RIBAO in Chinese 12 Sep 80 p 1 HK]

AUTUMN FARMING--This year Guizhou Province has 15.5 million mu of fields sown with autumn crops, which accounts for 54 percent of its arable land. The province has 4.3 million mu of fields with rape, 4.55 million mu of fields sown with wheat, 2.55 million mu sown with potatoes, 1.9 million mu sown with miscellaneous grains and 2.2 million mu sown with green manure. After readjustment this year, the areas sown with rape this year are 1.1 million mu more than last year while the areas sown with wheat this year are 1.55 million mu less than last year. [Guangzhou Guizhou Provincial Service in Mandarin 2315 GMT 21 Sep 80 HK]

CSO: 4007

HEILONGJIANG

TELEPHONE CONFERENCE ON PLANTING TREES HELD

SK141110 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT
13 Oct 80

[Text] According to station reporters, the Heilongjiang Provincial People's Government held a telephone conference last night, calling for efforts to plant trees this autumn. The conference urged all localities to fully mobilize the masses to earnestly implement the policy of "whoever afforests the land owns the trees" and to immediately bring about an upsurge in planting trees, especially trees used for firewood and charcoal.

The conference noted: Our province has some 3.65 million peasant households, of which 2 million are short of firewood. Therefore, the planting of firewood and charcoal forests is a major matter in solving the energy problem in rural areas. It has a direct bearing on the livelihood of the peasants and the development of agriculture and animal husbandry.

The conference urged all localities to allocate about 3 mu of land to each commune household to plant trees for firewood and charcoal and, in line with the principle of making use of whatever land is suitable for agriculture, forestry and animal husbandry, to make full use of all forest land to plant firewood and charcoal forests. Localities with plenty of forest lands can allocate more lands for commune households. Each commune household can afforest its share of land for personal use. The land should be owned by the collectives, the forests should be owned by the individuals and the products should be owned by the peasants themselves. Such a policy will not change for a long time. In the first 2 years, commune households can plant brushwood, and the profits they gain should accrue to them. A general survey should be conducted by the commune forest stations to which the commune households belong after afforestation. Forestry licenses will be issued by the municipal or the county people's governments for those commune households whose tree survival rate is some 80 percent. Those who fail to achieve this figure must reafforest the land until they reach the target. Forestry licenses will then be reissued to them.

The conference urged all localities to make proper arrangements, consider the planting of firewood and charcoal forests as one of the important contents of the farmland capital construction, concentrate all efforts and time on grasping this work and ensure that the firewood problem in our province's rural areas is solved in 2 to 5 years.

CSO: 4007

HEILONGJIANG

BRIEFS

LAND RECLAMATION--According to recently compiled statistics, the 155 mechanized reclamation centers in Heilongjiang Province have transformed 265 million mu of wasteland into farmland. [SK112308 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 9 Oct 80]

AGRICULTURAL ZONES READJUSTED--Harbin, 4 Oct (XINHUA)--Mishan County in Heilongjiang has readjusted its agricultural zones by reducing the size of its cropland from 2.07 million mu in the past to 2 million mu at present and by expanding its woodland from 2.04 million mu in the past to the projected 2.97 million mu. When this goal has been achieved, 44 percent--instead of the current 16.5 percent--of the county will be covered by trees. In the light of its natural conditions, the county has also demarcated the slopeland in the central and northern parts of the county for production of soybean and sundry crops and has encouraged the commune members to develop animal husbandry in the hilly areas in the north. [Beijing XINHUA Domestic Service in Chinese 0231 GMT 4 Oct 80 OW]

HEILONGJIANG FARM OUTPUT--Tieling Prefecture, Heilongjiang Province, has managed to reap a relatively good harvest despite natural disasters. The prefecture's total grain output is estimated at 4,376 million jin, an increase of 99 million jin over 1979 figures. [SK021107 Harbin Heilongjiang Provincial Service in Mandarin 2200 GMT 29 Sep 80]

REFRIGERATING PLANT--Harbin, 10 Oct (XINHUA)--A new meat packing and refrigerating plant with a storing capacity of 10,800 tons went into operation in the northeast China city of Harbin yesterday. It is one of the many projects being built in China to meet the growing demands for meat packing and cold storage capacity. Since the government raised meat purchasing prices last year, Chinese peasants are raising and selling more pigs. The highly mechanized Harbin refrigerating plant can process 2,000 pigs every day. All its equipment is made in China. [Text] [Beijing XINHUA in English 1021 GMT 10 Oct 80 OW]

CSO: 4020

BRIEFS

FERTILIZER USAGE IN 1979--In 1979 about 30 jin of nitrogen fertilizer and approximately 8 jin of phosphate fertilizer were applied, on the average, to each mu of farmland throughout Henan Province. [Chenzhou HENAN NONGLIN KEJI (HENAN AGRICULTURAL AND FORESTRY SCIENCE AND TECHNOLOGY) in Chinese No 9, 10 Sep 80 p 5]

APPLE HARVEST IN 1979--In 1979, the 2 million mu of apple trees in Henan Province produced a bumper harvest. Total output was 600 million jin. In recent years there has been an average annual increase of 100 million jin. This year it is predicted that the apple harvest will amount to 700 million jin. In five years it could increase to 1.2 billion jin. [Chenzhou HENAN NONGLIN KEJI (HENAN AGRICULTURAL AND FORESTRY SCIENCE AND TECHNOLOGY) in Chinese No 9, 10 Sep 80 p 28]

SEED BREEDING-SUPPLY NETWORK--Zhengzhou, October 13 (XINHUA)--A well-established seed breeding and distribution network has helped increase harvests in central China's Henan Province, one of the country's major producers of wheat, cotton, sesame and peanuts. At present, there are thousands of seed breeding centers run by state farms, people's communes and their sub-divisions. Each county in the province has set up a seed company to deal with seed processing and supplying. Over 150 million kilograms of fine seed of various crops have been distributed to growers in the past two years. The germination rate of wheat seed processed with seed selectors by some of the companies has reached 98 percent. This widespread seed breeding and distribution system has enabled the province to popularize the seeds best adapted to the local soil and climate. This year the acreage sown to such seed accounted for 94 percent of the total land under wheat and that for maize 89 percent. Last year the peasants began experimenting on sowing seed strains according to the type of soil and climate in one locality. They applied this zoning method this year to cotton and the crop is doing well. They plan to do the same for their winter wheat cultivation. [Text] [06131212 Beijing XINHUA in English 1200 GMT 13 Oct 80]

COTTON OUTPUT--Henan Province has reaped a good harvest from its 9 million mu of cotton after surmounting difficulties caused by drought, insect pests and other natural disasters. The 1980 total cotton output is estimated to reach 5.05 million dan, an increase of 27 percent compared with 1979. By the end of September, the province had already procured more than 530,000 dan of the newly reaped cotton. [Beijing Domestic Service in Mandarin 1200 GMT 5 Oct 80 GW]

HUBEI

BRIEFS

HUBEI AQUATIC PRODUCTION--Hubei Province has done well in developing aquatic production in the wake of readjusting the national economy. In 1979, the total fish production was 241 million jin. From January to July 1980, the total fish production amounted to 202.87 million jin, representing an increase of 16 percent over the corresponding period in 1979, and the number of fish fry amounted to 13 billion, an increase of 18 percent over the same period in 1979 and an all-time record. All leaders and aquatic product departments throughout the province have been working hard to increase aquatic production. At present, 5 municipalities under the jurisdiction of the province, 4 prefectures and 35 counties have set up or reestablished aquatic bureaus.
(Wuhan Hubei Provincial Service in Mandarin 1100 GMT 18 Sep 80)

CSO: 4007

HUNAN

BRIEFS

GRAIN MOLD CONTROL--(Changsha, 12 Oct (XINHUA)--The Hunan Provincial Scientific and Technical Commission and food department have commended use of an aromatic oil that controls aflatoxin, a carcinogenic substance produced in grain by mold. The research project was started by the Provincial Cereals and Oils Scientific Research Institute and the Zhijiang County Food Bureau in 1978. They selected litsea cubeba fruit from more than 180 kinds of medicinal herbs. The No. 1 grain depot of Changsha treated 1,250 tons of rice with steam, generated by boiling 12.5 kilograms of the aromatic oil distilled from litsea cubeba fruit. Three months later, the aflatoxin content had dropped from 100 micrograms to less than 10 per kilogram of rice. This is within the standard set by the state. Trial use by some small and medium-sized grain depots showed that all aflatoxin content could be eliminated. The oil is also effective in controlling the growth of other molds and preventing some insect pests in grain depots, without toxic effect. [Beijing XINHUA in English 0213 GMT 12 Oct 80 OW]

HUNAN AGRICULTURAL ZONING MEETING--A Hunan Provincial meeting on agricultural natural resources and agricultural zoning closed in Changsha on 20 September. The meeting summed up past experience in agricultural zoning and made arrangements for work over the next 2 to 3 years. The meeting urged all places to speed up agricultural zoning and grasp training work. At present, the province is short of technicians and capable persons. All provincial departments concerned should organize teams to help localities promote agricultural zoning work. [Changsha Hunan Provincial Service in Mandarin 1100 GMT 21 Sep 80]

CSO: 4007

OFFICIALS SUBMIT DRAFT REPORT ON AGRICULTURAL ZONING

OW141248 Beijing XINHUA in English 1219 GMT 14 Oct 80

[Text] Nanjing, October 14 (XINHUA)--A draft report of the natural resources and agricultural zoning in Jiangsu Province, east China, has just been submitted by scientists and agricultural officials.

Scientific data were accumulated to improve soil, build water conservancy projects and work out rational crop systems.

Output of economic crops can be expanded steadily, according to the draft report, on the basis of raising per-hectare grain yield. Particular emphasis will be placed on cotton, silkworm cocoon and rapeseed production. New centers will be established in northern Jiangsu to grow cotton and produce silkworm cocoons.

Mountainous and hilly areas should be afforested, more criss-crossing tree-belts built to protect farmland on the plains and more trees planted around villages and along roads and rivers.

Pig raising will be given priority in animal husbandry, while the raising of other grass-consuming domestic animals will be encouraged. Sea and fresh water fishing, and fish breeding and catching will be developed, with emphasis placed on fish breeding.

Moreover, further efforts will be made to develop the production of aquatic products in rivers and lakes, to grow crops the year round and to replenish the fertility of the land.

Though Jiangsu has made marked achievements in water conservancy, the draft report points out, present irrigation projects are still insufficient to ensure high, stable agricultural output in adverse weather.

Efforts should be intensified to cope with low temperatures, frost, excessive rainfall, typhoons and other natural adversities.

Surveys began in the mid 1960s, and the province's food grain and cotton output rose 5.1 and 4.2 per cent respectively each year in the 1970s, with fairly big increases in the production of edible oil, silk cocoon, pigs and poultry.

The area of low-yielding soil has since decreased and land fertility raised. But the physical and chemical properties of the high-yielding soil in some regions have deteriorated and there are problems in the three-crop areas.

A more detailed survey is being made. The soil survey will be extended to 30 more counties by the end of this year.

CSD: 4020

JIANGSU

BRIEFS

TEA HARVEST--The three tea farms of Nanjing Municipality, Jiangsu Province, have reaped bumper harvests. Total production amounts to 610 dan, up by 25 percent compared with last year. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 6 Oct 80 OW]

RAPE SOWING--Yangzhou Prefecture of Jiangsu Province has a plan of growing 830,000 mu of rape this year. By 25 September, 190,000 mu of seedlings fields had been sown. When transplanted, these seedlings will be sufficient for 850,000 mu of rape crop fields. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 4 Oct 80 OW]

GUANNAN COUNTY COMBATTING DROUGHT--Communes and brigades in Guannan County, Jiangsu, are actively engaged in combating drought and making preparation for fall sowing. So far, they have irrigated some 60 percent of drought-stricken cropland and sown 80,000 mu of wheat. [Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 3 Oct 80 OW]

RICE HARVEST--Over 20 million mu of intermediate and hybrid rice is being harvested in Jiangsu Province. As of 9 October, nearly 10 million mu was harvested, accounting for 52 percent of the total rice acreage. Seventy-four percent of Yancheng Prefecture's 2.96 million mu of intermediate and hybrid rice was harvested as of 7 October. [OW141115 Nanjing Jiangsu Provincial Service in Mandarin 1100 GMT 13 Oct 80 OW]

CSO: 4007

JIANGXI

BRIEFS

JIANGXI CASH CROP PRODUCTION--Jiangxi's cash crop harvest was still a bumper one this year despite unfavorable weather. Production of cotton, sugarcane, tea and other cash crops are expected to exceed production in 1979 by 100 to 300 percent. The reason for this is that leaders have seriously implemented the party's economic policy and encouraged development of cash crops. Jiangxi Province has also allocated funds for some areas to develop cotton, tea and sugarcane production. Therefore, the area for cotton growing has been expanded by some 100,000 mu this year and area for sugarcane growing has also been expanded. Also all localities have done well in learning science and technology and in improving the level of scientific cultivation. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 28 Sep 80]

JIANGXI SUMMER GRAIN PROCUREMENT--Some places in the province such as Yiyang, Guixi, Hengfeng, Shangrao, Yingtan and Jian municipality have fulfilled and overfulfilled summer grain procurement tasks this year. Despite bad weather since the summer grain harvest, all workers in these counties and municipalities made the most of fine days to fulfill their procurement quotas. Thus, their income was increased. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 13 Sep 80]

JIANGXI FISH BREEDING--Jiangxi Province is one of the country's commodity fish bases. Jiangxi Province has built 23,620 mu of fish bases with 7,477 mu of feed plots, and trained 2,070 professional workers. Thus, production has been increased. In 1979, 6,300 dan of fish was breed in 16 fish bases and the average rate was 100 jin per mu. It is possible to fulfill the quota of breeding 27,691 dan and turning over 19,600 dan to the higher authorities this year, since conditions are sound. The development of commodity fish bases is an important measure for enriching people living in coastal and lake regions. [HK061158 Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 15 Sep 80]

JIANGXI TUNG OIL PRODUCTION--From January to August this year, all native product departments throughout Jiangxi Province procured some 1.12 million jin of tung oil, 21.5 percent more than in the corresponding period last year. The province's output of tung oil last year was only 6 million jin, less than half of the quantity demanded. The quantity procured was less

than one-fifth of the quantity demanded. Beginning in the autumn of 1978, departments concerned have selected 28 counties as the province's tung oil production bases and each year appropriated 600,000 yuan in funds to help these bases develop tung oil production. This year tung trees were planted on some 300,000 mu. The area of tung trees has expanded from 900,000 mu in 1978 to the present 1.75 million mu. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 27 Sep 80]

JIANGXI ANIMAL, AQUATIC PRODUCTION--Development of animal husbandry and aquatic production in Jiangxi Province has been rapid this year. From January to August, the total aquatic production amounted to 760,000 dan, showing an increase of 300 percent over the same period last year. Since 1979, the province has worked hard to implement the principle of developing agriculture, forestry, animal husbandry, sideline production and fishery, and bring the superior situation of the province into play. Animal husbandry and aquatic production have been greatly developed since the Jiangxi Provincial People's Government's meeting on animal husbandry and aquatic production in the beginning of 1980. Since then, all localities have enhanced the people's sense of responsibility in rearing rabbits and breeding fish, and encouraged people to develop animal husbandry and fish breeding as domestic sideline production. [Nanchang Jiangxi Provincial Service in Mandarin 1100 GMT 28 Sep 80]

CSO: 4007

ACHIEVEMENTS OF NINE MARKETABLE GRAIN BASES REPORTED

SK120628 Changchun Jilin Provincial Service in Mandarin 1100 GMT
11 Oct 80

[Text] The first group of counties to be built into marketable grain bases--Yushu, Dehui, Nongan, Jiutai, Shuangyang, Huaise, Lishu, Yitong and Fuyu counties--have achieved notable results in the past few years.

Farm mechanization is the key to building marketable grain bases. These counties have firmly grasped this key factor and have exerted great efforts to develop it. They have rapidly increased their farm machines, and they now have some 9,700 large and medium-sized tractors, a 59-percent increase over 1976. Land leveled, sown or cultivated by machines has doubled, crops have been able to be planted at opportune times and their quality has improved. As a result, grain and soybean production has been greatly developed.

From 1977 to 1979, the total output of grain and soybeans in these nine counties was 24.97 billion jin, 49 percent of the province's total output. In 1979 their total grain and soybean output was 9.31 billion jin, increasing 1.8 billion jin over the 1976 figure. Marketable grain handed over to the state by these nine counties from 1977 to 1979 was 9.53 billion jin, 58 percent of the total amount of marketable grain the province handed over to the state. Comparing 1979 with 1976, marketable grain handed over to the state increased by 30 percent--or 840 million jin.

The nine marketable grain base counties have implemented the principle of planting according to local conditions and have adjusted crop patterns. They have expanded fields sown to oil-bearing crops, beets and potatoes and have achieved very good economic results. The total output of oil-bearing seeds in these counties in 1979 was 142 million jin, 42 percent higher than in 1976. Their total output of beets in 1979 was 693 million jin, 6 percent higher than in 1976.

Animal husbandry has also been developed in these counties. In 1979 they had 2.66 million pigs and 404,000 sheep, 6 percent and 66 percent increases respectively over 1976 figures.

The counties have also developed forestry, sideline production and fisheries. The collective economy has been expanded, commune members' income has increased and their living standards have improved. Average per capita food grain in these counties was 595 jin in 1979, 86 jin more than the average per capita amount of the province. Per capita income in 1979 was 129 yuan, 13 yuan more than the average per capita income of the province.

This year these nine marketable grain base counties have overcome serious natural adversities and will have a good harvest.

CSO: 4007

LIAONING

BRIEFS

LIAONING COTTON PRODUCTION--Yingkou County, Liaoning Province, had gathered 300,000 jin of cotton and handed over to the state 60,000 jin of ginned cotton as of 22 September. The county planted cotton on 22,500 mu of land this year. The per mu output of ginned cotton is expected to reach 100 jin. [Shenyang Liaoning Provincial Service in Mandarin 2200 GMT 29 Sep 80]

LIAONING FARM, SIDELINE PRODUCE--The Liaoning provincial supply and marketing cooperative held a telephone conference 28 September urging all departments concerned to concentrate all manpower and trucks on procuring and transporting farm and sideline produce this season. As of 25 September, Liaoning Province had procured 22,000 dan of cotton, an increase of 5 times over 1979, 21,000 dan of flue-cured tobacco, up 12 percent over 1979, and 41,000 tons of apples. The total value of procured autumn farm produce reached 9.19 million yuan, an increase of 15 percent over that of 1979. [SK021135 Shenyang Liaoning Provincial Service in Mandarin 1100 GMT 30 Sep 80]

XINBIN MINOR HARVEST--Shenyang, 5 Oct (XINHUA)--Xinbin County, Liaoning, has encouraged local commune members to go to the mountains to collect wild fruits, vegetables, herb medicine and other plants. At present, they have collected a total of 2.1 million jin of such plants worth more than 800,000 yuan. All the income belongs to the commune members themselves. [Beijing XINHUA Domestic Service in Chinese 0151 GMT 5 Oct 80 OW]

CSO: 4007

NEI MONGGOL

CONFERENCE HELD ON GRAIN WORK, DISASTER PREVENTION

SK140701 Hohhot Nei Monggol Regional Service in Mandarin 1100 GMT
12 Oct 80

[Excerpts] According to our sources, a regional conference on promoting production so as to solve difficulties with one's own efforts and on grain work was recently held in Nei Monggol. The conference stressed that during this winter-spring period, party committees and governments at all levels must do a good job in promoting production through one's own efforts and in combating natural adversities to protect animals. They must combine these two tasks so as to convert a disaster-ridden year into a fruitful one and to provide favorable condition for developing agriculture and animal husbandry next year and in the years to come.

The conference analyzed the regional situation in developing agriculture and animal husbandry, summed up experience and lessons in combating natural adversities and drew up plans for promoting production, combating disasters to protect animals and procuring and transporting grain during this winter-spring period.

Leading comrades of the regional party and government organs including Zhou Hui, Kong Fei, Peng Mengyu and Shi Guanghua addressed the conference.

This year drought is comparatively serious in the region. Owing to natural adversities, gross grain output in the entire region will decrease 20 percent over that of 1979. Despite better achievements in livestock breeding, animals are not well fed because of a shortage of fodder grass and animal feeds. This resulted in great difficulties in production and people's livelihood in the agricultural and pastoral areas. However, there is one salient feature of this year's agricultural disasters. There are both bumper harvests and poor harvests. Even the heavy disaster-ridden leagues, banners and counties registered production increases in some banners, counties, communes and brigades.

The conference noted that despite natural disasters in agriculture and animal husbandry, our region, as compared to 1979, has increased its total output of oil-bearing crops and sugarbeets, developed forestry

production and increased the total income of some commune and brigade-run enterprises. Production of some state agricultural and livestock farms has universally increased over that of last year.

The conference mapped out plans for work during this winter-spring period. It urged all localities to first do a good job in ideological and political work, set the minds of the people in the disaster-stricken areas at ease and adopt effective measures for doing relief work well. It noted it is necessary to open up more production avenues and increase the income of collectives and commune members. All regional departments should spare no efforts to support drought-combating work. Agricultural areas should do a good job in threshing and storing grain so as to lessen the losses. Pastoral areas should grasp well drought-combating work and protection of animals. Since this winter-spring period is a crucial one for next year's livestock production, it is therefore necessary to try everything possible in preparing the animals to tide over the winter and spring.

The conference urged party committees and governments at all levels to show concern for the difficulties of the people in the disaster-ridden areas and to arrange well for their livelihood. It is necessary to grasp well the procurement and sales of grain and oil-bearing crops and properly supply grain-deficient banners in line with policy.

Attending this conference were 200 responsible persons of 45 disaster-ridden banners from various leagues and municipalities, responsible persons of the grain departments of various leagues, municipalities, and key banners and counties and responsible comrades of regional committees, offices, departments and bureaus concerned.

CSO: 4007

NEI MONGGOL

BRIEFS

STATE PLAN FOR WOOL--Hohhot, Oct 4 (XINHUA)--Inner Mongolia, one of China's major stock-breeding areas, fulfilled its 1980 state purchase quota for sheep, camel and goat wool four months ahead of schedule. By the end of August, 39,000 tons of wool had been purchased. This was three per cent more than the planned target. Peasants and herdsmen in the autonomous region were eager to sell high-quality wool to the state, following an increase in animal products purchase prices by the government. [Text] [OW040806 Beijing XINHUA in English 0732 GMT 4 Oct 80]

CSO: 4020

CONFERENCE ON AGRICULTURAL RESOURCES SURVEY, ZONING HELD

SE121324 Xining Qinghai Provincial Service to Mandarin 2330 GMT
11 Oct 80

[Excerpts] According to our sources, the Qinghai Provincial People's Government held its second provincial work conference on agricultural and animal husbandry resources survey and zoning of crop and livestock areas from 4 to 8 October in Huangzhong County, summing up the past year's work and setting forth the next 2 years' tasks.

Over the past year, considerable achievements have been scored by Huzhu and Baiyan counties, the two pilots units to conduct agricultural and animal husbandry resources survey and zoning of crop and livestock areas. Soil surveys have been completed in 16 communes and are going on in the remaining ones of Huzhu County. The surveys on water, climate, animals, poultry and biological resources are in full swing. Baiyan County has completed all fieldwork and has now taken on the work of research and analysis. The results are expected to come out before the end of this year.

In addition to experimental work, Qinghai Province has organized professional personnel to work on the comprehensive zoning of crop and livestock areas in Qinghai Province and a 110,000-word rough draft report has been completed. The provincial grassland general station has conducted investigations on grassland resources in four counties in [words indistinct] area. The agricultural department has finished the initial zoning of agricultural areas. A training class, first of its kind in the province, has been held to train cadres in charge of agricultural zoning work. More than 140 cadres have been trained.

Some localities, however, lack understanding of this work and lag behind owing to failure in centralizing technical forces, shortage of funds and insufficient transport facilities.

CSO: 4007

QINGHAI

BRIEFS

QINGHAI AGRICULTURAL ZONING COMMISSION--The Qinghai Provincial Commission for agricultural and animal husbandry zoning was established recently. The commission held its first plenary session 26 September. Ga-bu-long, standing committee member of the Provincial CCP Committee and deputy provincial governor, was elected chairman. [SK061202 Xining Qinghai Provincial Service in Mandarin 2330 GMT 3 Oct 80]

WATER CONSERVATION--Qinghai Province has done a good job in water conservation work this year. The problem of potable water has been solved for 40,000 people and 170,000 head of livestock, irrigated areas have increased 28,000 mu and 78 wells have been installed. [Xining Qinghai Provincial Service in Mandarin 2330 GMT 9 Oct 80 SK]

CSO: 4007

SHANDONG

BRIEFS

AUTUMN SOWING--As of 8 October, Shandong Province had sown 48.4 million mu of wheat, fulfilling 87 percent of the wheat sowing plan. [SK141811 Jinan Shandong Provincial Service in Mandarin 2300 GMT 11 Oct 80 SK]

SHANDONG COTTON PROCUREMENT--Dezhou Prefecture, Shandong Province, had procured 620,000 dan of ginned cotton by 7 October, prefulfilling the state plan by 4.9 percent. Top-grade ginned cotton accounts for over 85 percent of the total. [SK081104 Jinan Shandong Provincial Service in Mandarin 2300 GMT 7 Oct 80]

CSO: 4007

XINJIANG

BRIEFS

XINJIANG CATTLE RAISING--Urumqi, 4 Oct (XINHUA)--Xinjiang Uygur Autonomous Region has achieved fairly good success in developing cattle raising. By the end of last June the region had raised 2.57 million head of cattle and bred 360,000 head of calves. This year Ili Prefecture has raised 578,000 head of cattle, or one-fourth of the total number of cattle in Xinjiang, and has become the principal supplier of beef, milk, milk powder and cow-hides in Xinjiang. While promoting cattle raising in pastoral areas, Xinjiang has also encouraged cattle raising in agricultural areas. This year the agricultural areas in Kashgar Prefecture have raised 400,000 heads of cattle, or 20 percent of the number of cattle in Xinjiang, while Aksu Prefecture has raised 290,000 head of cattle. Because of the development of cattle raising, supply of beef and milk, which used to be in short supply in Xinjiang for many years, has been improved. (Beijing XINHUA Domestic Service in Chinese 0245 GMT 4 Oct 80)

PISHAN COUNTY WHEAT SOWING--To do a good job in sowing 140,000 mu to winter wheat this year, the Pishan County party committee has adopted a personal responsibility system, linking the individual's rewards with the result of his work. [Urumqi Xinjiang Regional Service in Mandarin 1620 GMT 5 Oct 80 OW]

MOYU COUNTY GRAIN OUTPUT--Summer grain output in Moyu County, Xinjiang, this year has increased by 3 million jin over that in the last year. [Urumqi Xinjiang Regional Service in Mandarin 1620 GMT 5 Oct 80 OW]

CROP PRODUCTION--The output of summer grain is five percent and oil-bearing crops ten percent more than last year in the Ili River Valley area in the northwestern part of the Xinjiang Uygur Autonomous Region. This follows two successive years of good harvests. The output of wheat in some state farms averaged 4.5 tons per hectare and oil-bearing crops more than 1.8 tons per hectare. (Beijing XINHUA in English 0710 GMT 14 Oct 80)

CSO: 4020

BRIEFS

LHUNZHUB COUNTY RAPESEED HARVEST--Lhunzhub County, Xizang, has produced a total of over 1 million jin rapeseeds this year, an increase of 400,000 jin over last year. In 1979 the county harvested 618,000 jin rapeseeds from its 9,800 mu fields. [Lhasa Xizang Regional Service in Mandarin 1100 GMT 3 Oct 80 OW]

NAGU PREFECTURE LIVESTOCK BREEDING--Lhasa, 30 Sep (XINHUA)--Nagu Prefecture, a major livestock breeding base of Xizang, registered an increase in the number of livestock this year. The total number reached 9.06 million head, 1.36 million head more than last year. [Beijing XINHUA Domestic Service in Chinese 0119 GMT 30 Sep 80 OW]

ENTHUSIASM OVER NEW POLICIES--The implementation of new policies in the Tibet Autonomous Region has aroused the herdsmen's enthusiasm. The major livestock producing area of Nagqu reported 9,060,000 domestic animals this year, 1,360,000 more than the previous year. [Text] (Beijing XINHUA in English 0710 GMT 14 Oct 80 OW)

CSO: 4020

BRIEFS

LOW TEMPERATURE DAMAGE--Seven days of low temperatures beginning on 19 September have already severely affected Zhejiang's late rice output. If steps are not taken quickly, the late rice runs the risk of having large areas of "raised panicles" (panicles which have numerous empty grains). A responsible comrade of the provincial agricultural department commented that this fall has seen low temperatures and much rain. Hangzhou Municipality and Jiaxing Prefecture have experienced an average daily temperature of below 20° C during the past week. Such low temperatures for such a long period have not occurred since Liberation. Such low temperatures are not beneficial to the more than 3 million mu of late transplanted rice. According to records, the low temperatures were more severe this year than in the autumn of 1970 and 1971 when raised panicles occurred in approximately 1.5 million mu of late rice. According to the meteorology department, beginning on 26 September, the weather throughout the province will improve and during the next 3-5 days there will be more sunny days which should allow temperatures to rise. This opportunity should be taken to apply appropriate measures which will increase the weight of the kernels and prevent disease, especially rice neck blast. [Hangzhou ZHEJIANG RIBAO in Chinese 26 Sep 80 p 1]

CSO: 4007

PUBLICATIONS

II. PUBLICATIONS

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